

DOTF80" 4254E360

Tubes Cluster Patterns: C0H C6H C1D C2D C4D C6D
 N CIs: 4 - P ANDVA: 0.0005 - Tubes Present: PNull < 0.0005 and Min FC: 2.5
 Hu Map Present: PNull < 0.000005

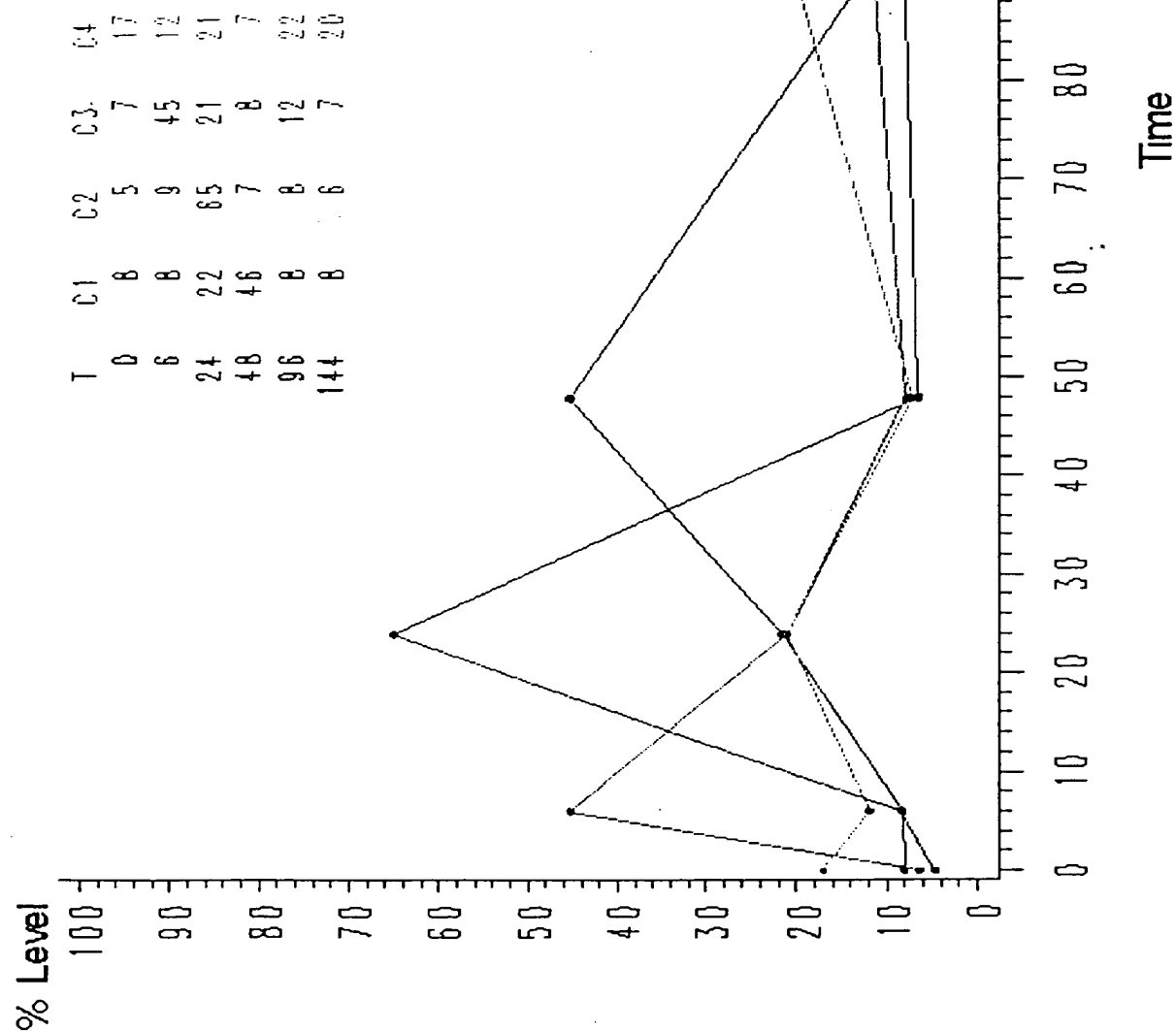


FIGURE 1

FIGURE 2

GTTCGCCGCCGCCGCCGCCGCCACCTGGAGTTTTTTCAGACTCCAGATTTCCCTGTCAACCACGAGGAGTCCAGAGAGGA
AACGCGGAGCGGAGACAACAGTACCTGACGCCTCTTTTCAGCCCCGGGATCGCCCCAGCAGGGATGGGCGACAAGATCTGGC
TGCCCTTCCCCGTGCTCCTTCTGGCCGCTCTGCCTCCGGTGCTGCTGCCTGGGGCGGCCGGCTTCACACCTTCCCTCGAT
AGCGACTTCACCTTTACCCTTCCCGCCGGCCAGAAGGAGTGCTTCTACCAGCCCATGCCCCTGAAGGCCTCGCTGGAGAT
CGAGTACCAAGTTTTAGATGGAGCAGGATTAGATATTGATTTCCATCTTGCCTCTCCAGAAGGCAAAACCTTAGTTTTTG
AACAAAGAAAATCAGATGGAGTTCACACTGTAGAGACTGAAGTTGGTGATTACATGTTCTGCTTTGACAATACATTCAGC
ACCATTTCTGAGAAGGTGATTTTCTTTGAATTAATCCTGGATAATATGGGAGAACAGGCACAAGAACAAGAAGATTGGAA
GAAATATATTACTGGCACAGATATATTGGATATGAACTGGAAGACATCCTGGAATCCATCAACAGCATCAAGTCCAGAC
TAAGCAAAAGTGGGCACATACAACTCTGCTTAGAGCATTGGAAGCTCGTGATCGAAACATACAAGAAAGCAACTTTGAT
AGAGTCAATTTCTGGTCTATGGTTAATTTAGTGGTCTATGGTGGTGGTGTCAGCCATTCAAGTTTATATGCTGAAGAGTCT
GTTTGAAGATAAGAGGAAAAGTAGAACTTAAACTCCAACTAGAGTACGTAACATTGAAAAATGAGGCATAAAAAATGCA
ATAAACTGTTACAGTCAAGACCATTAAATGGTCTTCTCCAAAATATTTTGAGATATAAAAGTAGGAAACAGGTATAATTTT
AATGTGAAAATTAAGTCTTCACTTTCTGTGCAAGTAATCCTGCTGATCCAGTTGTACTTAAGTGTGTAACAGGAATATTT
TGCAGAAATATAGTTTAACTGAATGAAGCCATATTAATACTGCATTTTCTAACTTTGAAAAATTTTGCAAATGTCTTA
GGTGATTTAAATAAATGAGTATTGGGCCTAAATGCAACACCAGTCTGTTTTGAACAGGTTCTATTACCCAGAACTTTTTT
GTAAATGCGGCAGTTACAAATTAAGTGTGGAGGTTT

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ATGGGCGACAAGATCTGGCTGCCCTTCCCCGTGCTCCTTCTGGCCGCTCTGCCTCCGGTGCTGCTGCCTGGGGCGGCCGG
CTTCACACCTTCCCTCGATAGCGACTTCACCTTTACCCTTCCCGCCGGCCAGAAGGAGTGCTTCTACCAGCCCATGCCCC
TGAAGGCCTCGCTGGAGATCGAGTACCAAGTTTTAGATGGAGCAGGATTAGATATTGATTTCCATCTTGCCTCTCCAGAA
GGCAAAACCTTAGTTTTTGAACAAAGAAAATCAGATGGAGTTCACACTGTAGAGACTGAAGTTGGTGATTACATGTTCTG
CTTTGACAATACATTACAGCACCATTCTGAGAAGGTGATTTTCTTTGAATTAATCCTGGATAATATGGGAGAACAGGCAC
AAGAACAAGAAGATTGGAAGAAAATATATTACTGGCACAGATATATTGGATATGAACTGGAAGACATCCTGGAATCCATC
AACAGCATCAAGTCCAGACTAAGCAAAAGTGGGCACATACAACTCTGCTTAGAGCATTGGAAGCTCGTGATCGAAACAT
ACAAGAAAGCAACTTTGATAGAGTCAATTTCTGGTCTATGGTTAATTTAGTGGTCTATGGTGGTGGTGTCAGCCATTCAAG
TTTATATGCTGAAGAGTCTGTTTGAAGATAAGAGGAAAAGTAGAACTTAA

FIGURE 3

FIGURE 4

MGDKIWLPFPVLLLAALPPVLLPGAAGFTPSLDSDFTFPLPAGQKECFYQPMPLKASLEIEYQVLDGAGL
DIDFHLASPEGKTLVFEQRKSDGVHTVETEVGDYMFCFDNTFSTISEKVIFFELILDNMGEQAQEDEDWK
KYITGTDILDMKLEDILESINSIKSRLSKSGHIQTLLRAFEARDRNIQESNFDVRNFWSMVNLVVMVVVS
ATQVYMLKSLFEDKRKSRT.

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FIGURE 5

Peptide Name: AAA4p1

Sequence: H-Cys-Met-Leu-Lys-Ser-Leu-Phe-Glu-Asp-Lys
-Arg-Lys-Ser-Arg-Thr-OH

Peptide Name: AAA4p2

Sequence: H-Cys-Ala-Gly-Phe-Thr-Pro-Ser-Leu-Asp-Ser-Asp
-Phe-Thr-Phe-Thr-NH₂

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FIGURE 6

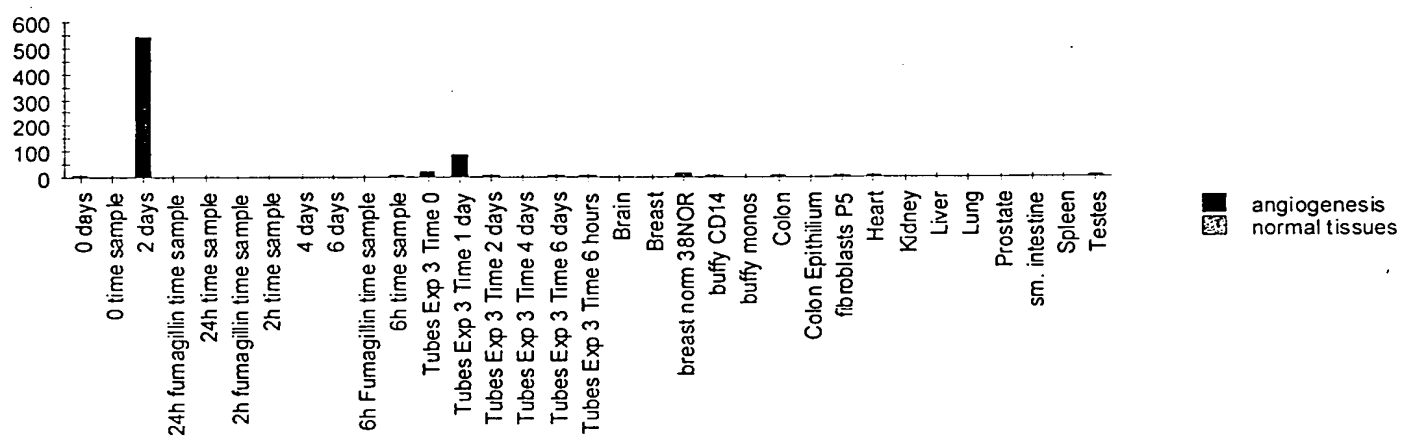


FIGURE 7

TAAAAATCGAGCTGAGATGATAGATTTCAATATCCGGATCAAAAATGTGACAAGAAGTGATGCGGGGAAATATCGTTGTG
AAGTTAGTGCCCATCTGAGCAAGGCCAAAACCTGGAAGAGGATACAGTCACTCTGGAAGTATTAGTGGCTCCAGCAGTT
CCATCATGTGAAGTACCCTCTTCTGCTCTGAGTGGAAGTGTGGTAGAGCTACGATGTCAAGACAAAGAAGGGAATCCAGC
TCCTGAATACACATGGTTTAAAGGATGGCATCCGTTTGTAGAAAATCCCAGACTTGGCTCCCAAAGCACCAACAGCTCAT
ACACAATGAATACAAAACCTGGAAGTCTGCAATTTAATACTGTTTCCAAACTGGACACTGGAGAATATTCTGTGAAGCC
CGCAATTCTGTTGGATATCGCAGGTGTCCTGGGAAACGAATGCAAGTAGATGATCTCAACATAAGTGGCATCATAGCAGC
CGTAGTAGTTGTGGCCTTAGTGATTTCCGTTTGTGGCCTTGGTGTATGCTATGCTCAGAGGAAAGGCTACTTTTCAAAG
AAACCTCCTTCCAGAAGAGTAATTCTTCATCTAAAGCCACGACAATGAGTGAAAATGATTTCAAGCACACAAAATCCTTT
ATAATTTAAAGACTCCACTTTAGAGATACACCAAAGCCACCGTTGTTACACAAGTTATTAACTATTATAAACTCTGCT
TTGTCCGACATTTGCAAAGAGGTACACGAGGAAATGGAATTGGTATTTCAATTTTAAATTTTTCATGACTACTAACTCACCTG
AACTTGCTATTTTAAACAAATAGTTCTGTCGACACCTAAAATATAATCTGGCTTCTTGTGCTCTGGACTAAGTTAAAAGAA
TTAAAATACTTTGTAATGTCAAAAA

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KNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQQNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPA
PEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYYRRCPGKRMQVDDLNISGIIAA
VVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFI I .

FIGURE 8

FIGURE 9

Peptide Name: AAA1p1

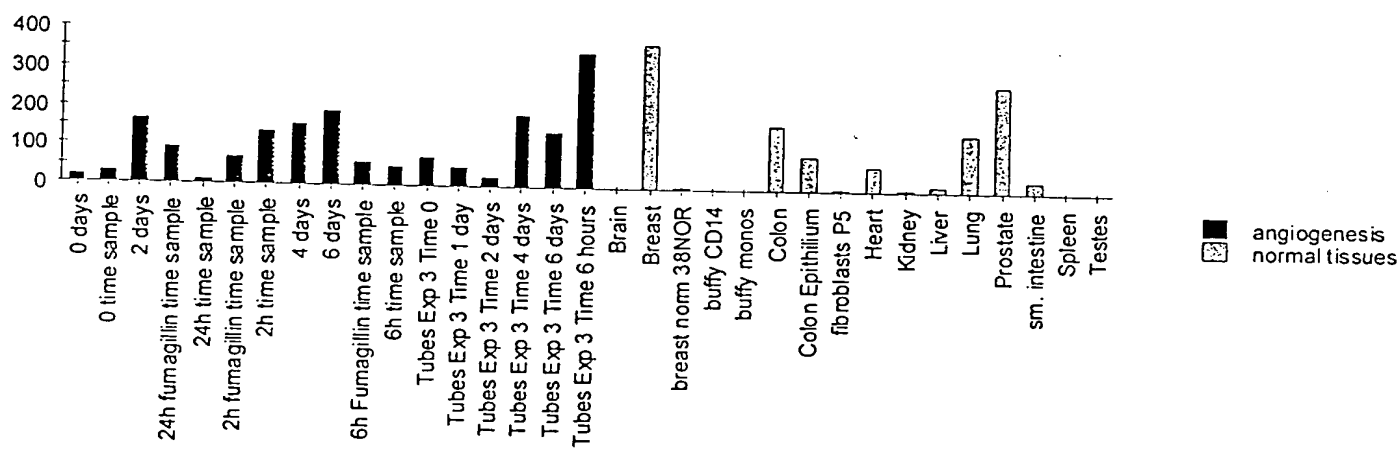
Sequence: H-Cys-Ala-Thr-Thr-Met-Ser-Glu-Asn-Asp-Phe-Lys
-His-Thr-Lys-Ser-NH₂

Peptide Name: AAA1p2

Sequence: Ac-Arg-Cys-Gln-Asp-Lys-Glu-Gly-Asn-Pro-Ala-Pro
-Glu-Tyr-Thr-NH₂

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FIGURE 10



TCTAAAGGTCGGGGGEAGGAGCAAGATGCGAAGCGAGCCGTACAGATCCCGGGCTCTCCG
AACGCAACTTCGCCCTGCTTGAGCGAGGCTGCGGTTTCCGAGGCCCTCTCCAGCCAAGGA
AAAGCTACACAAAAGCCTGGATCACTCATCGAACCACCCCTGAAGCCAGTGAAGGCTCT
CTCGCCTCGCCCTCTAGCGTTCGTCTGGAGTAGCGCCACCCCGGCTTCCTGGGGACACAG
GGTTGGCACCATGGGGCCCACCAGCGTCCCGCTGGTCAAGGCCACCGCAGCTCGGTCTC
TGACTACGTCAACTATGATATCATCGTCCGGCATTACAACACACGGGAAAGCTGAATAT
CAGCGCGGACAAGGAGAACAGCATTAAACTGACCTCGGTGGTGTTCATTCTCATCTGCTG
CTTTATCATCTCTGGAGAACATCTTTGTCTTGCTGACCATTGGAAAACCAAGAAATTCCA
CCGACCCATGTACTATTTTATTGGCAATCTGGCCCTCTCAGACCTGTTGGCAGGAGTAGC
CTACACAGCTAACCTGCTCTTGTCTGGGGCCACCACCTACAAGCTCACTCCCGCCAGTG
GTTTCTGCGGGAAGGGAGTATGTTTGTGGCCCTGTGAGCCTCCGTGTTTCACTCTCCTCGC
CATCGCCATTGAGCGCTATATCACAATGCTGAAAATGAAACTCCACAACGGGAGCAATAA
CTTCCGCCTCTTCTGCTAATCAGCGCCTGCTGGGTCTCTCCCTCATCTGCGGTGGCCT
GCCTATCATGGGCTGGAAGTGCATCAGTGCCTGTCCAGCTGCTCCACCGTGTGCGGCT
CTACCACAAGCACTATATCTCTTCTGCACCACGGTCTTCACTCTGCTTCTGCTCTCCAT
CGTCATTCTGTACTGCAGAATCTACTCCTTGGTCAGGACTCGGAGCCGCCCTGACGTT
CCGCAAGAACATTTCCAAGGCCAGCCGAGCTCTGAGAATGTGGCGCTGCTCAAGACCGT
AATTATCGTCCTGAGCGTCTTTCATCGCCTGCTGGGCACCGCTCTTCATCTCTGCTCTGCT
GGATGTGGGCTGCAAGGTGAAGACCTGTGACATCCTCTTCAGAGCGGAGTACTTCTGGT
GTTAGCTGTGCTCAACTCCGGCACCAACCCCATCATTTTACACTCTGACCAACAAGGAGAT
GCGTCGGGCCCTTCATCCGGATCATGTCTGCTGCAAGTGCCCGAGCGGAGACTCTGCTGG
CAAATTCAGCGACCCATCATCGCCGGCATGGAATTCAGCCGAGCAAATCGGACAATTC
CTCCCACCCCGAGAAAGACGAAGGGGACAACCCAGAGACCATTATGTCTTCTGGAACGT
CAACTCTTCTTCTAGAACTGGAAGCTGTCCACCCACCGGAAGCGCTCTTTACTTGGTCTG
CTGGCCACCCAGTGTTTGGAAAAAATCTCTGGGCTTCGACTGCTGCCAGGGAGGAGCT
GCTGCAAGCCAGAGGGAGGAAGGGGGAGAATACGAACAGCCTGGTGGTGTGCGGTGTTGG
TGGGTAGAGTTAGTTCTGTGAACAATGCACTGGGAAGGGTGGAGATCAGGTCCCGGCCCT
GGAATATATATTCTACCCCCCTGGAGCTTTGATTTTGCAGTGAAGGCTAGCATT
GTCAAGCTCCTAAAGGGTTCAATTTGGCCCCCTCCTCAAAGACTAATGTCCCATGTGAAAG
CGTCTCTTTGTCTGGAGCTTTGAGGAGATGTTTTCTTCACTTTAGTTTCAAACCCAAAGT
GAGTGTGTGCACTTCTGCTTCTTTAGGGATGCCCTGTACATCCCACACCCACCCCTCCCT
TCCCTTCATACCCCTCCTCAACGTTCTTTTACTTTATACTTTAACTACCTGAGAGTTATC
AGAGCTGGGGTTGTGGAATGATCGATCATCTATAGCAAATAGGCTATGTTGAGTACGTAG
GCTGTGGGAAGATGAAGATGGTTTGGAGGTGTAAACAATGTCTTCGCTGAGGCCAAAG
TTTCCATGTAAAGCGGGATCCGTTTTTGGAAATTTGGTTGAAGTCACTTTGATTTCTTTAA
AAAACATCTTTTCAATGAAATGTGTTACCATTTTCAATATCCATTGAAGCCGAAATCTGCAT
AAGGAAGCCCACTTTATCTAAATGATATTAGCCAGGATCCTTGGTGTCTTAGGAGAAACA
GACAAGCAAAACAAAGTGAAAACCGAATGGATTAACTTTTGCAAACCAAGGGAGATTTCT
TAGCAAATGAGTCTAACAAATATGACATCCGTCTTTCCCACTTTTGTGATGTTTATTTT
AGAATCTTGTGTGATTCAATTTCAAGCAACAACATGTTGTATTTTGTGTGTTAAAGTAC
TTTTCTTGATTTTTGAATGTATTTGTTTCAGGAAGAAGTCATTTTATGGATTTTCTAAC
CCGTGTTAACTTTTCTAGAATCCACCCCTCTTGTGCCCTTAAGCATTACTTTAACTGGTAG
GGAACGCCAGAACTTTTAAGTCCAGCTATTCATTAGATAGTAATTGAAGATATGTATAAA
TATTACAAAGAATAAAAAATATATTACTGTCTCTTTAGTATGGTTTTTCAGTGCAATTAAAC
CGAGAGATGTCTGTTTTTTTTTAAAAAGAATAGTATTTAATAGGTTTCTGACTTTTGTGGA
TCATTTTGCACATAGCTTTATCAACTTTTAAACATTAATAAACTGATTTTTTTTAAAG

FIGURE 11

FIGURE 12

ATGGGGCCCCACCAGCGTCCCGCTGGTCAAGGCCCCACCGCAGCTCGGTCTCTGACTACGTCAACTATGATATCATCGTCCG
GCATTACAACCTACACGGGAAAGCTGAATATCAGCGCGGACAAGGAGAACAGCATTAAACTGACCTCGGTGGTGTTTCATTC
TCATCTGCTGCTTTATCATCCTGGAGAACATCTTTGTCTTGCTGACCATTGGAACCAAGAAATTCCACCGACCCATG
TACTATTTTATTGGCAATCTGGCCCTCTCAGACCTGTTGGCAGGAGTAGCCTACACAGCTAACCTGCTCTGTCTGGGGC
CACCACCTACAAGCTCACTCCCGCCAGTGGTTTCTGCGGGAAGGGAGTATGTTTGTGGCCCTGTCAGCCTCCGTGTTCA
GTCTCCTCGCCATCGCCATTGAGCGCTATATCACAATGCTGAAAATGAACTCCACAACGGGAGCAATAACTTCCGCCTC
TTCCTGCTAATCAGCGCCTGCTGGGTCATCTCCCTCATCCTGGGTGGCCTGCCTATCATGGGCTGGAAGTGCATCAGTGC
GCTGTCCAGCTGCTCCACCGTCTGCGCTCTACCACAAGCACTATATCCTCTTCTGCACCACGGTCTTCACTCTGCTTC
TGCTCTCCATCGTCATTCTGTACTGCAGAATCTACTCCTTGGTCAGGACTCGGAGCCGCCGCTGACGTTCCGCAAGAAC
ATTTCCAAGGCCAGCCGAGCTCTGAGAATGTGGCGCTGCTCAAGACCGTAATTATCGTCCTGAGCGTCTTCATCGCCTG
CTGGGCACCGCTCTTCATCCTGCTCCTGCTGGATGTGGGCTGCAAGGTGAAGACCTGTGACATCCTCTTCAGAGCGGAGT
ACTTCCTGGTGTTAGCTGTGCTCAACTCCGGCACCAACCCCATCATTTACACTCTGACCAACAAGGAGATGCGTCGGGCC
TTCATCCGGATCATGTCCTGCTGCAAGTGCCCGAGCGGAGACTCTGCTGGCAAATTCAAGCGACCCATCATCGCCGGCAT
GGAATTCAGCCGAGCAAATCGGACAATTCCTCCACCCCCAGAAAGACGAAGGGGACAACCCAGAGACCATTATGTCTT
CTGGAAACGTCAACTCTTCTTCCTAG

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FIGURE 13

MGPTSVPLVKAHRSSVSDYVNYDIIVRHYNITGKLNISADKENSIKLTSVVFILICCFIILENIFVLLTIWKTCKFHRPM
YYFIGNLALSDLLAGVAYTANLLLSGATTYKLTPAQWFLREGSMFVALSASFSLIAIAIERYITMLKMKLHNGSNNFRI
FLLISACWVISLILGGLPIMGWNCISALSSCSTVLPYHKHYILECTTVFTLLLSIVILYCRIYSLVRTRSRLTERKN
ISKASRSSENVALLKTVIIVLSVFIACWAPLFIILLLDVGCKVKTCDILFRAEYFLVLAVLNSGTNPIIYTLTNKEMRRA
FIRIMSCCKCPSGDSAGKFKRPIIAGMEFSRSKSDNSSHPQKDEGDNPETIMSSGNVNSSS.

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FIGURE 14

Peptide names	amino acid sequence	Solubility
AAA7p1	Ac-KLNISADKENS IKLC-NH2	1mg/1ml H2O
AAA7p2	H-CTTYKLTPAQWFLRE-NH2	min.amt.DMSO/H2O
AAA7p3	H-CNPIIYTLTNKEMRR-NH2	1mg/1ml H2O
AAA7p1m	Ac-KLNIGA EKDHGIKLC-NH2	1mg/1ml H2O

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FIGURE 15

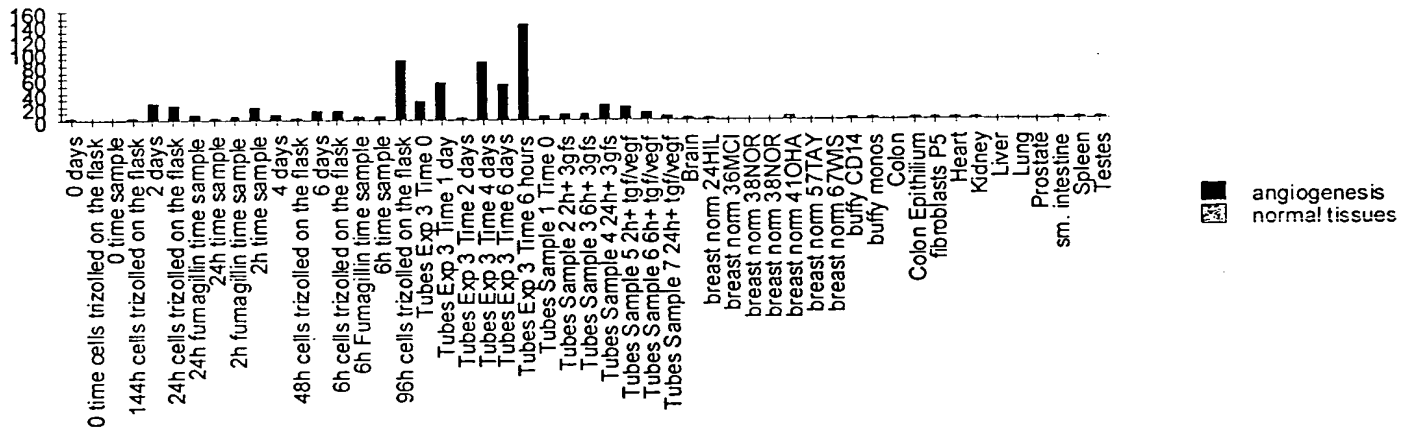


FIGURE 17

CAGGACAGGGAAGAGCGGGCGCTATGGGGAGCCGGACGCCAGAGTCCCCTCTCCACGCCGTGCAGCTGCC
 CTGGGGCCCCCGCGCCGACCCCEGCTCGTGCCGCTGCTGTTGCTGCTCGTGCCGCCGCCACCCAGGGTCT
 GGGGGCTTCAACTTAGACGCGGAGGCCCCAGCAGTACTCTCGGGGCCCCGGGCTCCTTCTCGGATTCT
 CAGTGGAGTTTTACCGGCCGGGACAGACGGGGTCAGTGTGCTGGTGGGAGCACCCAGGCTATACAG
 CCAGCCAGGAGTGTGCAGGGTGGTGTCTGTCTACCTCTGTCTTGGGGTGCCAGCCCCACACAGTGCACC
 CCCATTGAATTTGACAGCAAAGGCTCTCGGCTCCTGGAGTCTCACTGTCCAGCTCAGAGGGAGAGGAGC
 CTGTGGAGTACAAGTCCCTTGCAGTGGTTCGGGGCAACAGTTCGAGCCCATGGCTCCTCCATCTTGGCATG
 CGCTCCACTGTACAGCTGGCGCACAGAGAAGGAGCCACTGAGCGACCCCGTGGGCACCTGCTACCTCTCC
 ACAGATAACTTCAACCGAATTCTGGAGTATGCACCTGCCGCTCAGATTTAGCTGGGCAGCAGGACAGG
 GTTACTGCCAAGGAGGCTTCACTGCCGAGTTACCAAGACTGGCCGTGTGGTTTTAGGTGGACAGGAAG
 CTATTTCTGGCAAGGCCAGATCCTGTCTGCCACTCAGGAGCAGATTGCAGAATCTTATTACCCGAGTAC
 CTGATCAACCTGGTTCAGGGGCAGCTGCAGACTCGCCAGGCCAGTTCCATCTATGATGACAGCTACCTAG
 GATACTCTGTGGCTGTGGTGAATTCAGTGGTGTGATGACACAGAAGACTTTGTTGCTGGTGTGCCCAAAGG
 GAACCTCACTTACGGCTATGTACCATCCTTAATGGCTCAGACATTGATCCCTCTACAACTTCTCAGGG
 GAAACAGATGGCTCCCTACTTTGGCTATGCAGTGGCCGCCACAGACGTCAATGGGGACGGGCTGGATGACT
 TGCTGGTGGGGGCACCCCTGCTCATGGATCGGACCCCTGACGGGGCGGCTCAGGAGGTGGGCAGGGTCTA
 CGTCTACCTGCAGCACCCAGCCGGCATAGAGCCACGCCACCCCTTACCCTCACTGGCCATGATGAGTTT
 GGCCGATTTGGCAGCTCCTTGACCCCCCTGGGGGACCTGGACCAAGGATGGCTACAATGATGTGGCCATCG
 GGGCTCCCTTTGGTGGGGAGACCCAGCAGGGAGTAGTGTGTTGATTTCTGGGGGCCAGGAGGGCTGGG
 CTCTAAGCCTTCCCAGGTTCTGCAGCCCTGTGGGCAGCCAGCCACACCCAGACTTCTTTGGCTCTGCC
 CTTTCAGGAGGGCCGAGACCTGGATGGCAATGGATACTCTGATCTGATTGTGGGGTCTTTGGTGTGGACA
 AGCCTGTGGTATACAGGGGGCCGCCCATCGTGTCCGCTAGTGCCTCCCTCACCATCTTCCCCGCCATGTT
 CAACCCAGAGGAGCGGAGCTGCAGCTTAGAGGGGAACCTGTGGCCTGCATCAACCTTAGCTTCTGCCTC
 AATGCTTCTGGAAAACACGTTGCTGACTCCATTGGTTTACAGTGGAACTTCAGCTGGACTGGCAGAAGC
 AGAAGGGAGGGGTACGGCGGGCACGTGTTCCCTGGCCTCCAGGCAGGCCAACCTGACCCAGACCTTGCTCAT
 CCAGAATGGGGTTCGAGAGGATTGCAGAGAGATGAAGATCTACCTCAGGAACGAGTCAAGATTTTCGAGAC
 AACTCTCGCCGATTACATCGCTCTCACTTCTCCTTGGACCCCCAAGCCCCAGTGGACAGCCACGGCC
 TCAGGCCAGCCCTACATTATCAGAGCAAGAGCCGGATAGAGGACAAGGCTCAGATCTTGTGGACTGTGG
 AGAAGACAACATCTGTGTGCCTGACCTGCAGCTGGAAGTGTGTTGGGGAGCAGAACCATGTGTACCTGGGT
 GACAAGAATGCCCTGAACCTCACTTTCCATGCCCAGAATGTGGGTGAGGGTGGCGCCTATGAGGCTGAGC
 TTCGGGTACCCGCCCTCCAGAGGCTGAGTACTCAGGACTCGTCAAGACACCCAGGGAACCTTCTCCAGCCT
 GAGCTGTGACTACTTTGCCGTGAACAGAGCCGCTGCTGGTGTGTGACCTGGGCAACCCCATGAAGGCA
 GGAGCCAGTCTGTGGGGTGGCCTTCGGTTTACAGTCCCTCATCTCCGGGACACTAAGAAAACCATCCAGT
 TTGACTTCCAGATCCTCAGCAAGATCTCAACAACTCGCAAGCGACGTGGTTTCTCTTTCGGCTCTCCGT
 GGAGCCTCAGGCCCAGGTCACCTGAACGGTGTCTCCAAGCCTGAGGCAGTGCTATTCCCAGTAAGCGAC
 TGGCATCCCCGAGACCAGCCTCAGAAAGGAGGAGCCTGGGACCTGCTGTCCACCATGTCTATGAGCTCA
 TCAACCAAGCCCCAGCTCCATTAGCCAGGGTGTGCTGGAACCTCAGCTGTCCCCAGGCTCTGGAAGGTCA
 GCAGCTCCTATATGTGACCAGAGTTACGGGACTCACTGCACCACCAATACCCCATTAACCCAAAGGGC
 CTGGAGTTGGATCCCGAGGGTTCCCTGCACCACCAGCAAAAACGGGAAGCTCCAAGCCGCAGCTCTGCTT

 CCTCGGGACCTCAGATCCTGAAATGCCCGGAGGCTGAGTGTTCAGGCTGCGCTGTGAGCTCGGGCCCCCT
 GCACCAACAAGAGAGCCAAAGTCTGCAGTTGCATTTCCGAGTCTGGGCCAAGACTTTCTTGACGCGGGAG
 CACCAGCCATTTAGCCTGCAGTGTGAGGCTGTGTACAAAGCCCTGAAGATGCCCTACCGAATCCTGCCTC
 GGCAGCTGCCCCAAGAGAGCGTCAGGTGGCCACAGCTGTGCAATGGACCAAGGCAGAAAGGCAGCTATGG
 CGTCCCCTGTGGATCATCATCCTAGCCATCCTGTTTGGCCTCCTGCTCCTAGGTCTACTCATCTACATC
 CTCTACAAGCTTGGATCTTCAACGCTCCCTCCCATATGGCACCGCCATGGAAAAGCTCAGCTCAAGC
 CTCCAGCCACCTCTGATGCCCTGAGTCTTCCCAATTTAGACTTCCATTCTGAAGAACCAAGTCCCCCAGC
 CTTCTATCTACTGAAAAGGAGGGGTCTGGGTACTTCTTGAAGGTGCTGACGGCCAGGGAGAAGCTCCTCT
 CCCAGCCAGAGACATACTTGAAAGGGCCAGAGCCAGGGGGGTGAGGAGCTGGGGATCCCTCCCCCCCCAT
 GCACTGTGAAGGACCCTTGTGTTACACATACCTCTTCAATGGATGGGGGAACCTCAGATCCAGGGACAGAGG
 CCCAGCCTCCCTGAAGCCTTTGCATTTTGGAGAGTTTCTGAAACAACCTGGAAAGATAACTAGGAATCC
 ATTCACAGTTCTTTGGGCCAGACATGCCACAAGGACTTCTGTCCAGCTCCAACTGCAAGATCTGTCC
 TCAGCCTTGCCAGAGATCCAAAAGAAGCCCCCAGTAAAGAACCTGGAACCTGGGGAGTTAAGACCTGGCAG
 CTCTGGACAGCCCCACCCCTGGTGGGCCAACAAAGACAACTAACTATGCATGGTGGCCAGGACGACTCA
 GGACAGATGCCACAAGGATAGATGCTGGCCAGGCCAGCCAGCTCCAAGGGGAATCAGAACTCAAA
 TGGGGCCAGATCCAGCCTGGCGTCTGGAGTTGATCTGGAACCCAGACTCAGACATTGGCACCATAACAGG
 CAGATCCAGGACTATATTTGGGCCTGCTCCAGACCTGATCCTGGAGGCCAGTTACCCCTGATTTAGGAG
 AAGCCAGGAATTTCCCAGGACCTGAAGGGGCCATGATGGCAACAGATCTGGAACCTCAGCCTGGCCAGAC
 ACAGGCCCTCCCTGTTCCCCAGAGAAAGGGGAGCCCACTGTCTGGGCCTGCAGAATTTGGGTCTGTGCT
 GCCAGCTGCACCTGATGCTGCCCTCATCTCTGCCCCAACCTTCCCTCACCTTGGCACCAGACACCCAG
 GACTTATTTAACTCTGTGCAAGTGCAATAAATCTGACCCAGTGGCCCCACTGACCAGAAGTAGAAAAA
 AAAA

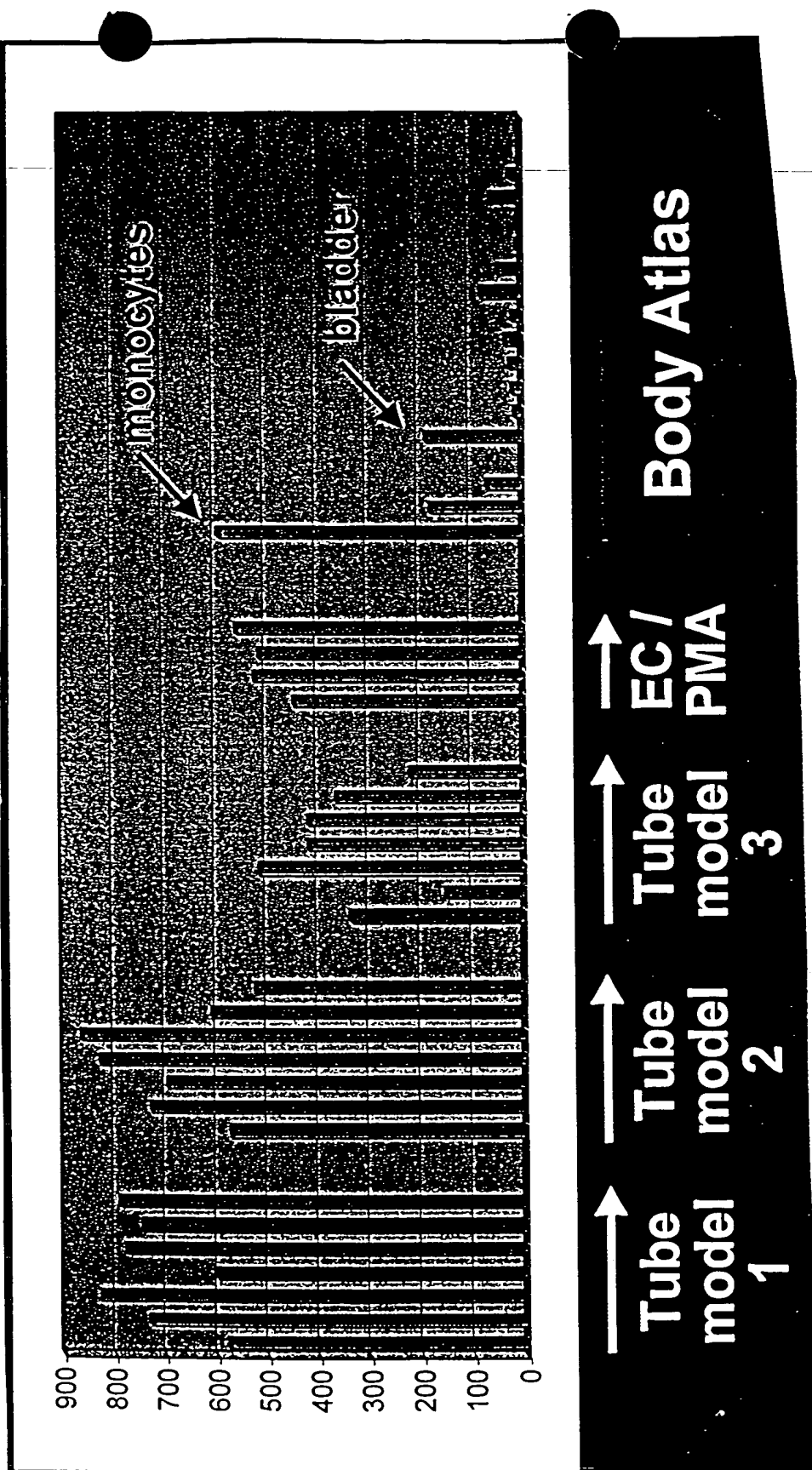
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FIGURE 18

MGSRT¹PESPLHAVQLRWGPRRRPPLVPLLLLLVPPFPRVGGFNLD²AEAPAVLSGPPGSFFGFSVEFYRPGTDGVSVLVGA
FKANTSQPGVLQGGAVYI.CPWGASPTQCTPIEFDSKGSRLLESSLSSEGE³EPVEYKSLQWFGATVRANGSSILACAPLY
SWRTEKEPLSDPVGTCYI.STDNFTRILEYAPCRSDFSWAAGQGYCQGGFSAEFTKTGRVVLGGPGSYFWQQILSATQEQ
IAESYYPEYLINLVQQQLQTRQASSIYDDSYLGYSVAVGEFSGDDTEDFVAGVPKGNLTYGYVTILNGSDIRSLYNFSGE
QMASYFGYAVAATDVNGDGLDLLVGAPILMDRTPDGRPQEVGRVYVYLQHPAGIEPTPTLTLTGHDEFGRFGSSILTPIG
DLDQOGYNDVAIGAPFGGETQQGVVFVFPGGPGGLGSKPSQVLQPLWAASHTPDFFGSALRGGRDLGNGYPDLIVGSFG
VDKAVVYRGRPIVSASASLTIFPAMFNPEERSCSLEGNPVACINLSFCLNASGKHVADSIGFTVELQLDWQKQKGGVRRN
L.FLASRQATLTQTLLIQNGAREDCREMKIYLRNESEFRDKLSPIHIALNFSLDPQAPVD⁴SHGLRPALHYQSKSRIEDKAQ
ILI.DCGEDNICVPDLQLEVFGEQNHVYLGDKNALNLTFHAQNVGEGGAYE⁵AE⁶LRVTAPPEAEYSGLVRHFGNFSSLS⁷CDY
FAVNQSRILVCDLGNPMKAGASLWGGLRFTVPHLRDTKKTIQFDFQILSKNLNNSQSDVVSFRLSVEAQAQVTLNGVSKP
EAVLFPVSDWHPRDQPQKEEDLGPVHHVYELINQGPSSISQGVLELSC⁸PQALEGQQLLYVTRVTG⁹LNCTTNHPIN¹⁰PKGL
ELDPEGSLHHQKRFAPSRSSASSGFQILKCEAECFRLRCELGPLHQ¹¹QESQSLQLHFRVWAKTFLQREHQPFSLQCEAV
YKALKMPYRILPRQLPQKERQVATAVQWTKAEGSYGVPLWIIILAILEGLLLLGLLIYI¹²LYKLGF¹³FKRSLPYGTAMEKAQ
LKPFATSDA

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FIGURE 19



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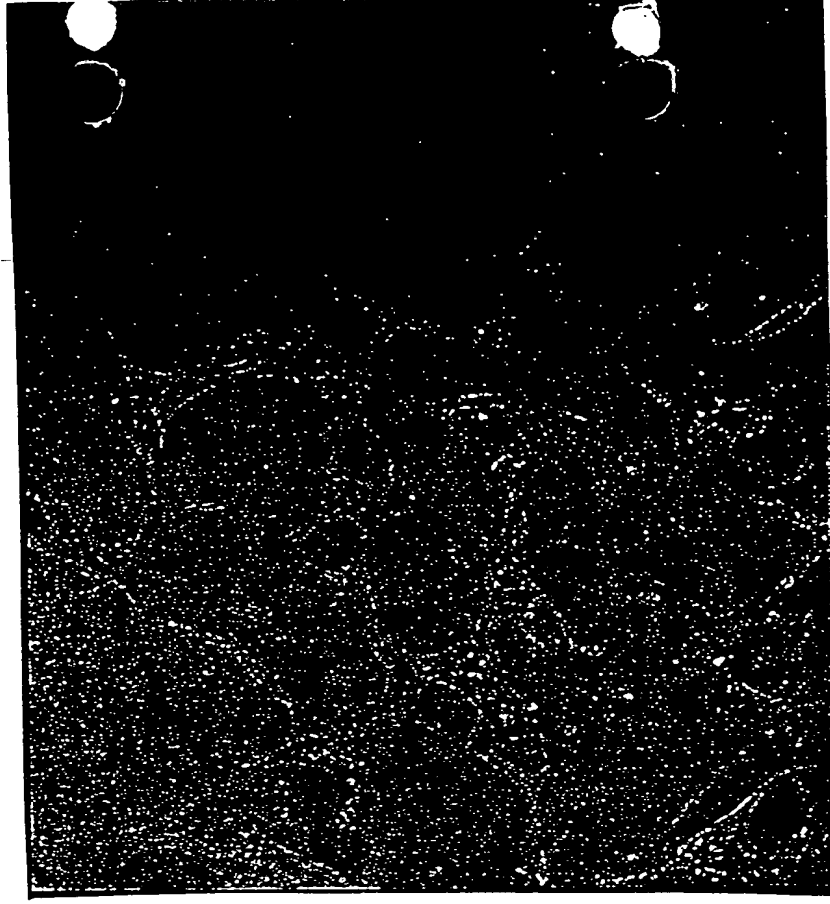
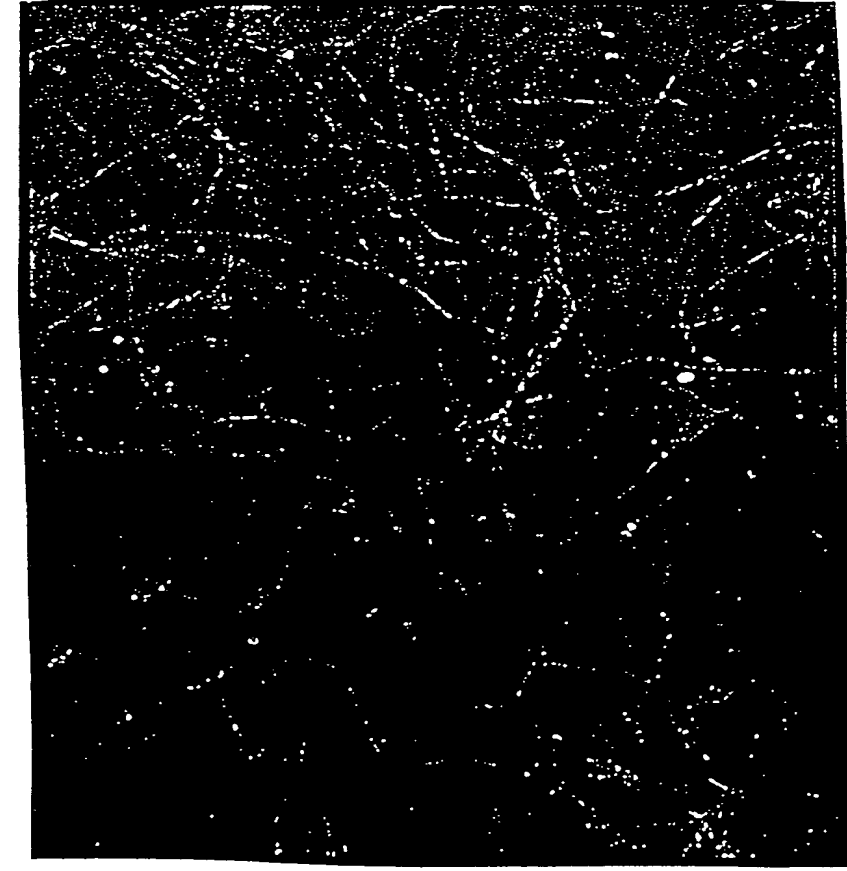


FIGURE 20

AAA9 cDNA Sequence

AAGGCCCTGCCAGCTTGGGAGGGAATTGTCCCTGCCTGCTTCTGGAGAAAGAAGATATTGACACCATCTAC
GGGCACCATTGAAGCTGCTTCAAGTGACCATTCCTTTTTCTTCTGCCCAGTATTTGCAGCAGTAACAGCACAG
GTGTTTTAGAGGCAGCTAATAATTCACCTGTTGTTACTACAACAAAACCATCTATAACAACACCAACACA
GAATCATTACAGAAAAATGTTGTCAACCAACAACCTGGAACAACCTCCTAAAGGAACAATCACCAATGAATT
ACTTAAATGTCTCTGATGTCAACAGCTACTTTTTTAACAAGTAAAGATGAAGGATTGAAAGCCACAACCA
CTGATGTCAAGGAAGAATGACTCCATCATTTCAAACGTAACAGTAACAAGTGTACACTTCCCAATGCTGTT
TCAACATTACAAAGTTCCAAACCCAAGACTGAAACTCAGAGTTCAATTAAAAACAACAGAAATACCAGGTAG
TGTTCTACAACCAGATGCATCACCTTCTAAACTGGTACATTAACCTCAATACCAGTTACAATTCCAGAAA
ACACCTCACAGTCTCAAGTAATAGRCAGTGAAGGTGGAAAAAATGCAAGCACTTCAGCAACCAGCCGGTCT
TATTCCAGTATTATTTTGGCGGTGGTTATTGCTTTGATTGTAATAACACTTTCAGTATTTGTTCTGGTGGG
TTTGTACCGAATGTGCTGGAAGGCAGATCCGGGCACACCAGAAAATGGAAATGATCAACCTCAGTCTGATA
AAGAGAGCGTGAAGCTTCTTACCGTTAAGACAATTTCTCATGAGTCTGGTGAGCACTCTGCACAAGGAAAA
ACCAAGAACCTGAGCTTGAGGAATTCCTCCACACCTAGGCAATAATTACGCTTAATCTTCAGCTTCTAT
GCACCAAGCGTGGAAAAGGAGAAAGTCCTGCAGAATCAATCCCGACTTCCATACCTGCTGCTGGACTGTAC
CAGACGTCTGTCCAGTAAAGTGATGTCCAGCTGACATGCAATAATTTGATGGAATCAAAAAGAACCCCGG
GGCTCTCCTGTTCTCTCACATTTAAAAAATTCATTACTCCATTTACAGGAGCGTTCCTAGGAAAAGGAATT
TTAGGAGGAGAATTTGTGAGCAGTGAATCTGACAGCCCAGGAGGTGGGCTCGCTGATAGGCATGACTTTCC
TTAATGTTTTAAAGTTTTCCGGGCCAAGAATTTTTATCCATGAAGACTTTCCTACTTTTCTCGGTGTTCTTA
TATTACCTACTGTTAGTATTTATTGTTTACCACATATGTTAATGCAGGGAAAAGTTGCACGTGTATTATTAA
ATATTAGGTAGAAATCATACCATGCTACTTTGTACATATAAGTATTTTATTCCTGCTTTCGTGTTACTTTT
AATAAATACTACTGTACTCAATACTCTAAAAATACTATAACATGACTGTGAAAATGGCAATGTTATTGTC
TTCCTATAATTATGAATATTTTGGATGGATTATTAGAATACATGAACTCACTAATGAAAGGCATTTGTAA
TAAGTCAGAAAGGGACATAGGATTCACATATCAGACTGTTAGGGGGAGAGNTAATTATCAGTTCCTTGGTC
TTTCTATTTGTCATTCTACTATGTGATGAAGATGTAAGTGCAAGGGCATTATATAACACTATACTGCATT
ATTAGATAT

FIGURE 21

AAA9 Protein

MELLOVTILELLPSICSSNSTGVLEAANNSLVVTTTKPSITTPNTESLQKNVVTPTTGTPKGTITNELLK
MSLMSTATFLTskDEGLKATTTDVRKNDISIISNVTVTSVTLPLNAVSTLQSSKPKTETQSSIKTTEIPGSVL
QPDASPSKTGTLTIPVTIPENTSQSQVIXTEGGKNASTSATSRSYSSIIILP
RMCWKADPGTPENGNDQPQSDKESVKLLTVKTI SHESGEHSAQGKTKN

FIGURE 22

AAB4 (MMP10)

ATG CATCTTGCATTCCTTGTGCTGTTGTGTCTGCCAGTCTGCTCTGCCTATCCTCTGAGTGGGG
CAGCAAAAGAGGAGGACTCCAACAAGGATCTTGCCCAGCAATACCTAGAAAAGTACTACAAC
CTCGAAAAGGATGTGAAACAGTTTAGAAGAAAGGACAGTAATCTCATTGTTAAAAAAATCCA
AGGAATGCAGAAGTTCCTTGGGTGGAGGTGACAGGGAAGCTAGACACTGACACTCTGGAGG
TGATGCGCAAGCCCAGGTGTGGAGTTCCTGACGTTGGTCACTTCAGCTCCTTTCTGGCATGCC
GAAGTGGAGGAAAACCCACCTTACATACAGGATTGTGAATTATACACCAGATTTGCCAAGAG
ATGCTGTTGATTCTGCCATTGAGAAAGCTCTGAAAGTCTGGGAAGAGGTGACTCCACTCACAT
TCTCCAGGCTGTATGAAGGAGAGGCTGATATAATGATCTCTTTCGCAGTTAAAGAACATGGAG
ACTTTTACTCTTTTGATGGCCCAGGACACAGTTTGGCTCATGCCTACCCACCTGGACCTGGGCT
TTATGGAGATATTCATTTGATGATGATGAAAAATGGACAGAAGATGCATCAGGCACCAATTT
ATTCCTCGTTGCTGCTCATGAACTTGGCCACTCCCTGGGGCTCTTTCACTCAGCCAACACTGAA
GCTTTGATGTACCCACTCTACAACCTATTACAGAGCTCGCCCAGTTCCGCCTTTTCGCAAGATG
ATGTGAATGGCATTCACTCTCTCTACGGACCTCCCTGCCTCTACTGAGGAACCCCTGGTGCC
CACAAAATCTGTTCTTCGGGATCTGAGATGCCAGCCAAGTGTGATCCTGCTTTGTCCTTCGAT
GCCATCAGCACTCTGAGGGGAGAATATCTGTTCTTTAAAGACAGATATTTTGGCGAAGATCC
CACTGGAACCCCTGAACCTGAATTTCAATTTGATTTCTGCATTTTGGCCCTCTCTTCCATCATATTT
GGATGCTGCATATGAAGTTAACAGCAGGGACACCGTTTTTATTTTAAAGGAAATGAGTTCTG
GGCCATCAGAGGAAATGAGGTACAAGCAGGTTATCCAAGAGGCATCCATACCCTGGGTTTTTC
CTCCAACCATAAGGAAAATTGATGCAGCTGTTTCTGACAAGGAAAAGAAGAAAACATACTTC
TTTGCAGCGGACAAATACTGGAGATTTGATGAAAATAGCCAGTCCATGGAGCAAGGCTTCCCT
AGACTAATAGCTGATGACTTTCCAGGAGTTGAGCCTAAGGTTGATGCTGTATTACAGGCATTT
GGATTTTCTACTTCTTCAGTGGATCATCACAGTTTGAGTTTGACCCCAATGCCAGGATGGTGA
CACACATATTAAGAGTAACAGCTGGTTACATTGCTCTAGA **TAG**

FIGURE 23

